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APPLICANT: Katsuya TESHIMA et al.

TITLE: ARTIFICIAL CORUNDUM CRYSTAL

THE COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDED CLAIMS

1. (original) An artificial corundum crystal having at least one crystal face selected from a group consisting of a {113} face, a {012} face, a {104} face, a {110} face, a {101} face, a {116} face, a {211} face, a {122} face, a {214} face, a {100} face, a {125} face, a {223} face, a {131} face, a {312} face.

2. (original) An artificial corundum crystal having a dominant crystal face other than a {001} face.

3. (currently amended) The artificial corundum crystal according to claim 1 [[or 2]], which is derived from a crystal having a hexagonally dipyramidal shape.

4. (currently amended) The artificial corundum crystal according to ~~any one of claims 1 to 3~~ claim 1, which is colorless.

5. (currently amended) The artificial corundum crystal according to ~~any one of claims 1 to 3~~ claim 1, into which [[a]] chromium is added as a coloring component.

6. (currently amended) The artificial corundum crystal according to ~~any one of claims 1 to 3~~ claim 1, into which [[an]] iron and [[a]] titanium are added as coloring components.

7. (currently amended) The artificial corundum crystal according to ~~any one of claims 1 to 3~~ claim 1, into which [[a]] nickel is added as a coloring component.

8. (currently amended) The artificial corundum crystal according to ~~any one of claims 1 to 3~~ claim 1, into which [[a]] vanadium is added as a coloring component.

9. (currently amended) The artificial corundum crystal according to ~~any one of claims 1 to 3~~ claim 1, into which [[a]] cobalt is added as a coloring component.

10. (original) A process for producing an artificial corundum crystal, wherein an artificial corundum crystal having a hexagonally dipyramidal shape as its base shape is produced by a flux evaporation method of heating a sample containing a raw material and a flux to precipitate a crystal and grow the crystal by use of a flux evaporation as a driving force.

11. (original) The process for producing an artificial corundum crystal according to claim 10, wherein the flux contains a molybdenum compound.

12. (original) The process for producing an artificial corundum crystal according to claim 11, wherein the molybdenum compound is a molybdenum oxide or a compound which is heated to generate the molybdenum oxide.

13. (original) The process for producing an artificial corundum crystal according to claim 12, wherein the flux contains an evaporation inhibitor.

14. (original) The process for producing an artificial corundum crystal according to claim 13, wherein the evaporation inhibitor is an alkali metal compound.

15. (original) The process for producing an artificial corundum crystal according to claim 14, wherein the alkali metal compound is an alkali metal oxide, or a compound which is heated to generate the alkali metal oxide.

16. (original) The process for producing an artificial corundum crystal according to claim 14, wherein the alkali metal compound is a compound which is heated to generate at least one kind of alkali metal oxide selected from a group consisting of Li_2O, Na_2O, and K_2O.

17. (currently amended) The process for producing an artificial corundum crystal according to ~~any one of claims 14 to 16~~ claim 14, wherein a mol number of an alkali metal atom in the alkali metal compound is 40% or less by mol of total mol numbers of the sample.

18. (currently amended) The process for producing an artificial corundum crystal according to ~~any one of claims 10 to 17~~ claim 10, wherein a mol number of the raw material is 10% or less by mol of the total mol numbers of the sample.

19. (original) A raw material for producing an artificial corundum crystal, which is used to produce an artificial corundum crystal and contains a molybdenum compound and an aluminum compound.

20. (original) The raw material for producing an artificial corundum crystal according to claim 19, which contains an alkali metal compound.

21. (currently amended) The raw material for producing an artificial corundum crystal according to claim 19 [[or 20]], wherein the molybdenum compound is a molybdenum oxide, or a compound which is heated to generate the molybdenum oxide.

22. (currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 19 to 21~~ claim 19, wherein the aluminum compound is an aluminum oxide, or a compound which is heated to generate the aluminum oxide.

23. (currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 20 to 22~~ claim 20, wherein the alkali metal compound is an alkali metal oxide, or a compound which is heated to generate the alkali metal oxide.

24. (currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 19 to 23~~ claim 19, which contains a chromium compound which is heated to generate a chromium ion.

25. (currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 19 to 23~~ claim 19, which contains an iron compound which is heated to generate an iron ion, and a titanium compound which is heated to generate a titanium ion.

26. (currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 19 to 23~~ claim 19, which contains a nickel compound which is heated to generate a nickel ion.

27. ((currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 19 to 23~~ claim 19, which contains a vanadium compound which is heated to generate a vanadium ion.

28. (currently amended) The raw material for producing an artificial corundum crystal according to ~~any one of claims 19 to 23~~ claim 19, which contains a cobalt compound which is heated to generate a cobalt ion.